

**Notice of Allowability**

Application N .

09/510,667

Examiner

Delma R. Flores Ruiz

Applicant(s)

STROWITZKI, CLAUS

Art Unit

2828



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/15/2003.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 22 February 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

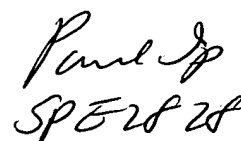
7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                       | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____.            |
| 3 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No. <u>4, 7</u> | 7 <input type="checkbox"/> Examiner's Amendment/Comment                             |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                 | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|   | 9 <input type="checkbox"/> Other  |

  
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## DETAILED ACTION

### *Allowable Subject Matter*

The following is an examiner's statement of reasons for allowance: claim 1 has been allowed over the prior art because they fail to teach a **dust repelling unit to be placed in a gas laser unit in front of a laser optical element, comprising; a high-voltage duct comprising a high-voltage conducting core having a first end and a second end and an insulator element disposed around the core, the first end of the core being connectable to a high voltage power supply; and a closed wire loop electrically connected to the second end of the high-voltage core; and wherein when connected to a high voltage power supply, the closed wire loop creates an electric field for charging and repelling dust particles.**

Claims 2, 3 and 20 has been found allowable due to their dependency on claim 1.

The following is an examiner's statement of reasons for allowance: claim 4 has been allowed over the prior art because they fail to teach a gas laser, comprising: a tube having a first end wall at one end and second end wall at the other end and defining a cavity for coating a laser gas an **elongated high voltage lectrode within**

the tube and extending parallel to the longitudinal axis of the tube; an elongated ground electrode within the tube, the ground electrode extending parallel to the high voltage electrode and being spaced apart from the high voltage electrode to thereby define a gas discharge gap therebetween; a laser resonating path in axial alignment with the gas discharge gap; a first laser optical element disposed in the laser resonating path and having a first side exposed to the cavity formed by the tube and a dedusting unit comprising a high-voltage duct comprising a high-voltage conducting core having a first end and second end and an insulator element disposed around the core, the first end of the core being connectable to high voltage power supply; and a wire loop electrically connected to the second end of the high-voltage core; and the dedusting unit mounted to the laser tube so that the wire loop is disposed inside the tube in proximity to the first side of the optical element, and the wire loop is transverse to the resonating path so that the resonating path passes through the wire loop.

Claims 5 – 12 has been found allowable due to their dependency on claim 4.

The following is an examiner's statement of reasons for allowance: claim 13 has been allowed over the prior art because they fail to teach a method for installing a

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dedusting unit for a laser optical element of a gas laser, comprising: a tube having a first end wall at one end and a second end wall at the other end and defining a cavity for containing a laser gas, a laser resonating path substantially parallel to the longitudinal axis of the tube and along which coherent light can resonate, and a laser optical element having a first side exposed to the cavity formed by the tube, the laser optical element being mounted to the first end wall so that the first side of the optical element is deposited in the laser resonating path, and wherein the dedusting unit for the optical element comprises a high-voltage duct comprising a high-voltage conducting core having a first end and second end and an insulator element disposed around the core, the first end of the core being connectable to high voltage power supply; and a wire loop electrically connected to the second end of the high-voltage core, the method comprising the step of: flattering the wire loop into an elongated shape so that the width of the wire loop is similar that the diameter of a bore hole extending through the first end wall, inserting the wire loop through the bore until the elongated wire loop is inside the tube; expanding the elongated wire loop to a desired from which is transverse to the resonating path; and positioning the wire loop of desired from so that it is in proximity to the first side of the optical element and the laser resonating path passes through the wire loop.

Claims 14 – 17 has been found allowable due to their dependency on claim 13.

The following is an examiner's statement of reasons for allowance: claim 18 has been allowed over the prior art because they fail to teach a method for installing a dedusting unit for a laser optical element of a gas laser, comprising: a tube having a first end wall at one end and a second end wall at the other end and defining a cavity for containing a laser gas, a laser resonating path substantially parallel to the longitudinal axis of the tube and along which coherent light can resonate, and **a laser optical element disposed in the laser resonating path and having a first side exposed to the cavity formed by the tube, wherein the first end wall has a port aligned with the resonating path and a bore hole for installing the dedusting unit therethrough, and the optical element is mounted to the first end wall in alignment with the port, and wherein the dedusting unit for the optical element comprises a high-voltage duct comprising a high-voltage conducting core having a first end and second end and an insulator element disposed around the core, the first end of the core being connectable to high voltage power supply; and a wire loop electrically connected to the second end of the high-voltage core, the method comprising the step of; flattening the wire loop into an elongated shape so that the width of the wire loop is similar that the diameter of a bore, inserting the wire loop through the bore until the elongated wire loop is inside the tube; expanding the elongated wire loop to a desired from which is transverse to the resonating path; and positioning the wire loop of desired from so that it is in proximity to th**

**first side of the optical element and the laser resonating path passes through the wire loop.**

The following is an examiner's statement of reasons for allowance: claim 19 has been allowed over the prior art because they fail to teach a method for installing a dedusting unit for a laser optical element of a gas laser, comprising: a tube with a first end wall and a second end wall and a bore hole extending through the first end wall, wherein the dedusting unit for the optical element comprise **a high-voltage conducting core having a first end and second end and an insulator element disposed around the core having a diameter which is less than the bore hole in the first end wall of the tube, the first end of the core being connectable to a high voltage power supply and a flattened wire loop electrically connected to the second end of the high-voltage core having a diameter smaller than the bore diameter, but which is capable of being expanded to a diameter greater than the bore diameter, the method comprising the step of; inserting the wire loop through the bore until the elongated wire loop is inside the tube; expanding the elongated wire loop to a desired form which has a diameter greater than the bore diameter and which is transverse to a laser resonating path that is substantially parallel to the longitudinal axis of the tube and positioning the wire loop of desired form so that**

**it is in proximity to an optical element disposed in the laser resonating path and so that the laser resonating path passes through the wire loop.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason for Allowance".

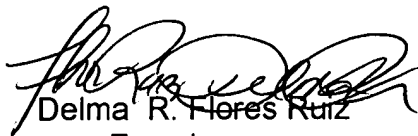
### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (571) 272-1940. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.



Delma R. Flores Ruiz

Examiner

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DRFR/PI

January 14, 2004



Paul Ip

Supervisor Patent Examiner

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